

THE TEACHER'S PROFESSIONALISM: LOGICAL AND ACTIVE APPROACH TO THE FORMATION OF THE EDUCATIONAL TECHNOLOGIES

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ABSTRACT

The article considers the professionalism of the teacher in the context of logic-active approach to the development of the educational technologies from the definition of its essence to the characterization of its' specific steps based on the experience of the high school teachers. There were found out the modern scientific approaches to the definition of educational technology in this very article.

KEY WORDS: professionalism, education technology, pedagogical technology, logical-activity approach, the teacher, competence, high school, professional training.

Problem stating

The success of the higher education reform in Ukraine is largely associated with the professionalism of a teacher who is a key figure in the educational process that determines the quality of the students' professional training. The conceptual principles concerning the content and organization of the future professionals' training in the higher educational establishments are based on the Law of Ukraine "On the Education" and "On the Higher Education", on the State National Program "The Education" ("Ukraine of the 21st Century"), on the National Doctrine of Education Development, on the Bologna Declaration (1999), on the UNESCO recommendations and on the other regulatory and legal documents, which emphasize the necessity of the fundamentalization in the educational sphere. The orientation for the new competency based educational paradigm, the dissemination of innovative processes in practical pedagogy cause the increase of society requirements to the teacher's professionalism. Modern theorists and practitioners suggest different

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tendencies solving urgent problems of higher education reformation in Ukraine in order to ensure the efficiency and high quality of the future professionals' training.

The main tendency of the specialists' training quality improvement is implemented in the semantic component system, beginning from the formation of the curriculum, educational and working programs of the disciplines up to the creation of the manuals and textbooks that provide their educational application. The important tendency providing the efficiency and high quality of the future professionals' training includes the communicative component of the pedagogical process, the effectiveness of students' individual work organization and the teacher's professionalism in the context of logical and active approach to the formation of educational technologies.

The analysis of the recent researches and publications has demonstrated that the scientific works of A. Aleksiuk [1], M. Ievtukh [2, 3], I. Ziaziun [4, 5], S. Sysoyeva [7], D. Chernylevskyi [8] and others are dedicated to the educational process efficiency increasing through the development and implementation of the new educational technologies that contribute to the quality and intensification of the educational process in the high school. The considerable attention of the scientists is brought to the different options of the module technology: module-tutorial, credit-module, problem-module as a basic technology in the context of the Bologna process realization. It can be primarily explained by the subjective perception, further improvement and the creative interpretation of the existing basic technologies by each teacher according to his educational professionalism.

The purpose of this article is the teacher's activity professionalism consideration in the context of logical and active approach to the formation of educational technologies from its' nature determination to the specific stages characteristics taking into account the high school teachers' experience.

The main material presentation

The professional competence of the teacher as an integrative quality is manifested in the teaching ability, willingness to perform various professional functions based on an organic combination of personal and professional skills that prove a high professional activity effectiveness. Its structure consists of professionally-active, communicative and personal components.

Activity professionalism is a high-level qualification and competence, effective mastery of professional abilities and skills, algorithms and methods of successful solution of the professional problems including creative ones. Activity professionalism ensures the uncompromising performing of appropriate scientific and pedagogical functions, perfect mastery of modern didactic high school technologies.

Activity professionalism is determined by the high level development of professional (objective) and pedagogical thinking. Thinking according to the algorithm

dictates the teacher school subject teaching methodology, but it also requires the divergent thinking, the use of heuristic methods, sensitivity to the educational problems detection (ability to solve them, to formulate hypotheses, to make hypotheses and to test them) [9].

Many higher educational institutions in Ukraine are actively developing the new pedagogical techniques taking into account the world experience. As we know “educational technology” as a pedagogical category has started itself from developing of the first innovative educational systems that emerged in the twentieth century, initially being at the educational field of the secondary school. These very systems have identified the main directions of innovative search of the entire century: personal education orientation, content integration, self-search education, education in collaboration with the students and the teacher, which positively influences the formation of students’ positive interests. Unlike the traditional system in which the student is seen as an object of study, the innovative training systems are based on the recognition of the student as an equitable subject of the educational interaction, the study focuses not on the studied subject but on the student’s identity, his individual peculiarity, needs and interests. Preference is given to the creative students’ activities, and inside the teaching process the democratic communication style prevails and cooperative atmosphere. The educational organization now involves a shift from the dominance of certain educational forms and methods towards determining of their pluralism and preference for creative initiative in education. The concept of “educational technology” came into educational circulation in didactics terminology in the 1960’s [7].

The most important modern scientific approaches defining the essence of educational technology are: educational technology as a science (scientific approach beginning from the definition and characteristics of all the components of “educational technology” as a science and finishing at its’ specific sections); educational technology as a synonym of methodology (methodological approach beginning from the methodic elements complex characterization finishing at its’ individual forms, methods and tools); educational technology as the educational process management (managerial approach beginning from the educational establishments technologies finishing at the lesson technologies); educational technology as a communication between two entities (communicative approach beginning from the interaction for the complex teaching and educational tasks solution finishing at the specific examples of interaction in the classroom); educational technology as a process (activity approach beginning from the general characteristics of teaching and educational cognitive activity finishing at its’ particular stages); educational technology as a psychological interaction (psychological approach to the analysis of the psychological mechanisms of two individuals with their inherent individual psychological and physiological characteristics); educational technology as a set

of operations (engineering approach to the designing, operating and evaluating of the teaching and educational process as a whole and also its' separate components).

In addition, according to the definition of the majority of the scientists the educational technology is a process, an activity that is based on evidence-based project, model, or algorithm (in its' wide meaning) with the well-programmed effective end result. That is, we can speak about more or less structured external nature of the educational technology, provided of course that technology without a second subject – a student, whom is barely mentioned in most definitions is unrealistic in its' implementation.

All the discussions concerning the nature of the educational technology have ended in 1986 after the publication of an official definition, which is currently held by the UNESCO. The gist of it is the fact that the educational technology is a systematic method of planning, application and evaluation of the whole process of educating and learning based on human and technical resources, the interaction between them to achieve a more effective form of education [4, p. 5]. It is at least a “consensus level of the awareness of the educational means value in order to achieve the goals of the social progress” [6, p. 91].

According to the some didactics specialists' opinions, the classification features of the educational technologies are derived from the very definition of the “educational technology” as a learning model oriented towards the achieving of the final guaranteed result. Therefore, the first technologies' classification parameter should be the general purpose-oriented trend, and the second one – the main way this goal can be achieved [8].

Today there is developed a concept of educational technologies differentiation, due to a large number of options proposed in the theory and practice of the educational subjects teaching. An alternative direction is the integration of technologies aimed at the searching of the “modern basic educational technology”, basic principles of which characterize it as a general, optimal or basic: purposefulness; diagnostic setting of development goals in general; projectiveness; integrity; nature accordance.

Some educational technology supporters believe that having reached strong learning outcomes through the technology, the teacher will be able to pay more attention to the pedagogical creativity and of students' development. Technological learning approach aims to construct a learning process, starting from the given initial settings (social order, educational guidance, purposes and education content) [3].

In the context of the above mentioned the educational technology's specification is the fact that it contains the constructing and implementing of a learning process, which should ensure the achievement of the goals. The basis of the consistent learning orientation to the objectives is an operational feedback that permeates whole the educational process. In line with this the logic-active approach to the educational

technologies formation highlights: the goals setting and their maximal specification, formulation of educational goals with a focus on the results achieving; preparation of the educational materials and the organization of the entire course of study in accordance with the educational objectives; Assessment of the current results, the education correction, focusing on the goals achieving; final results evaluation [3].

The professionalism of the teacher in the context of the realization of the logic-active approach to the educational technologies formation from its nature determination up to the characteristics of the specific stages that designates the creative process of educational activities improvement at level of the introduction of new students teaching technologies. It was established that the transition from the external practical activity into the internal one, that is mental action, is a complex process which can be divided into six generalized education stages:

1. During the first phase (elements of the technology: a preliminary review of an activity goal, creating of the cognitive activity motivation) using the specially designed teaching tools the students' prior familiarization with the planned educational activity is carried out. Creating the necessary motivation is realized by means of the problematic tasks. So, there are created the psychological conditions for the future cognitive activity.

2. The second stage of teaching (elements of technology: obtaining the necessary explanation of the purpose of the action, its object, reference system, that is the phase of the scheme oriented actions framework) aims to create a system of reference for students' mental cognitive activity during the formation of generalized scientific and technical or humanitarian concepts. If the students will be offered the logical structure of the subject knowledge, they, basing on it, will be able to highlight the following essential features and correlations that can be served as the references for any task performance.

3. The third phase of teaching (elements of the technology: the activity model formation) aims the teacher to develop a model of collective or individual actions of the students. For this the teacher will need the necessary educational tools that allow to display the possible mental actions in material or materialized view.

4. On the fourth stage of teaching (technology elements: initial independent educational activity organization based on the existing model) students can perform actions according to the developed model. As a means of education, the actions performance samples are used. The teacher's careful control is required to prevent the errors.

5. On fifth stage (elements of the technology: independent cognitive activity with the self-control elements) the teacher should ensure possibility of gradual reduction and action automation. This is can be reached through the way of teaching by the action method that is self-control. The specific objectives, which require the

use of the previously learned material by the students in order to obtain the most complete and deeply conscious response, can be used as a means of use.

6. The sixth stage of teaching (elements of the technology: independent cognitive activity with the elements of creativity) is conducted through the independent work on the complex tasks for the solution of which the formed knowledge and skills are necessary, and in some cases the new, more complex skills are required.

While carrying out the logical-active approach to the formation of educational technology, we can certainly go a long way of empirical searching of the best samples of all the elements of teaching activities. However, there is a reasonable and logical way in which through the analysis, synthesis, generalization and systematization of known theoretical proposals and advanced experience a new vision of “educational technology” is offered, and it is a means of optimization, intensification of a teaching activity and also cognitive and studying activities of the students as well. First of all the teacher “on his own designs the original, pedagogically appropriate interaction techniques, he builds the activity, based on the reflexive analysis and formed personal style” [5, p. 644]. He should use the known or to develop his own theoretical technology model. The principal feature of this model is its systematic determination, consisting of mutual determination of its such elements as: the objectives, the content, the forms, the methods, the means, the control the end result of the teacher’ activity; the stages of the educational technology are: the target stage, the informational stage, the perfectly productive stage, the objective stage, the estimating stage; the subject-object, the subject-subject relation technologies; the needs, interests, goals, means and the results of the students’ activities [3].

The content of the classes projecting is in the gradual forming of the students’ future cognitive activity steps aimed at the developing of the creative personality, universally intelligent professional. As has been mentioned above, the principal feature of the proposed system design is its determination, which is internal. In particular, the internal determination of the activities is aimed at the classes designing in the high school, and is realized through the certain cycles consisting of several stages.

The specificity of this technique is the fact that it is not based on the didactical principles, but on the laws of the communication processes and the countries’ information space control. Such approach is quite justified if we consider the studying process as communicative interaction between the teacher and the students. Paraphrasing the classics, there may be a lot of technological approaches, because there are many aspects in the subject. As can be seen from the proposed model, all the attention is focused on the teacher’s development stages. However, their content is somewhat general in nature [3]. The pedagogical career of the teacher “can be represented as a unity of the purpose, the motives, the actions (operations) and the result” [2, p. 640].

In its' turn, the teacher's professional competence is the ability to create the based on the logic-active approach to the formation of the educational technology the appropriate model that, in our opinion, may include the following stages: Stage 1 – the creation of educational and work program of the discipline, defining its teaching goals (due to the direction, specialty, type and level of specialists' training); Stage 2 – the collection of the information material and the preparation of the lectures texts, didactic materials the for seminars, practical or laboratory works; Stage 3 – the content implementation through the technological operations directly in the process of the educational discipline teaching; Stage 4 – the organization and management of students' independent work; Stage 5 – the realization of the humanistic and communicative component of the teaching activity.

Herewith, the third, the fourth and the fifth stages are interrelated and therefore need their usage according to the logic of the educational process in the integrated or differentiated form. In our opinion, these five steps are obligatory not only in the context of functional responsibilities of the teacher, but also in its form and professionalism to implement based on the logic-active approach any educational technologies.

The conclusion

At the present stage of the higher education reforming the demands to teacher's professionalism are increasing as he is a key figure in the educational process that determines the quality of training of the future professionals and the role of its own responsibility for the results of his work. The most important thing while designing the higher pedagogics problems should be the understanding of the logic-active approach to the educational activities, since the problem of the formation of the specialist's professional competence is especially acute, due to the modern trends of society development. The thing is about at least a "consensus level of the awareness of the educational means value in order to achieve the goals of the social progress" [6, p. 91].

The teachers' professionalism while the implementation of the logical-active approach to the formation of teaching technologies from the determining its' nature to the specific characteristics of the stages taking into consideration the experience of the high school teachers, which is a dominant feature of their activity and it contributes to the transition to a new level of the future professionals training efficiency.

We consider a perspective direction of the further research in the consideration of the educational technology as a combination of the steps of the basic kinds of teachers' activity in today's socio-cultural environment of the high school.

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References

1. Alekseyuk, A. M. (1993). *High School Pedagogy. Lectures: modular training, tutorial textbook* / A. M. Alekseyuk. K.: ІСДЮ. 220 p.
2. Ievtukh, M. B. (2008). Educational Activities / M. B. Ievtukh // *Encyclopedia of Education* // Academy of the pedagogical Sciences of Ukraine; Chief Editor V. G. Kremen. K.: Iurinkom Inter, p. 640–641.
3. Ievtukh, M. B. (2001). Educational technology of the high school classes projecting / M. B. Ievtukh, O. P. Serdiuk // *Theoretical problems of teaching and education: Coll. Science. works*. K.: KNLU, Vol. 17, p. 3–11.
4. Ziaziun, I. A. (2000). Didactic technologies in the modern high school: the search and the results / I. A. Ziaziun // *Creative personality in the system of continuous professional education: International Scientific Conference* (May, 16–17): [reports and speeches materials]. Kharkiv. 371 p.
5. Ziaziun, I. A. (2008). Pedagogical skills / I. A. Ziaziun // *Encyclopedia of Education* / Academy of the pedagogical Sciences of Ukraine; Chief Editor V. G. Kremen. K.: Iurinkom Inter, p. 641–644.
6. Mykhaylyshyn, H. (2013). Ukrainian mentality in the hierarchy of education values / H. Mykhaylyshyn // *Mountain School of Ukrainian Carpathians*, No. 10, p. 89–92.
7. Sysoeva, S. O. (ed.) (2001). *Teaching technology in continuous professional education*: [monograph]. K.: Publishing house “Vipol”. 502 p.
8. Chernylevskyi, D. V. (2002). *High school didactical technologies: textbook for the higher educational establishments* / D. V. Chernylevskyi / M.: UNITY-DANA. 437 p.
9. http://studopedia.net/4_37219_vikladacha.html

MOKYTOJO PROFESIONALUMAS: LOGIŠKO IR AKTYVAUS POŽIŪRIO Į ŠVIETIMO TECHNOLOGIJAS FORMAVIMAS

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Santrauka

Straipsnyje aptariamas mokytojo profesionalo požiūris į švietimo technologijų plėtrą. Analizuojama švietimo technologijų plėtros samprata bei nurodomi konkretūs žingsniai ir būtinos kompetencijos, kaip pasiekti, kad naujausios švietimo technologijos būtų naudingos ugdymo procese. Pristatoma ir aukštųjų mokyklų patirtis siekiant naujausių švietimo technologijų, kad būtų patenkinti švietimo paslaugų vartotojų (mokinių, studentų) poreikiai ir lūkesčiai.

PAGRINDINIAI ŽODŽIAI: profesionalas, švietimo technologijos, pedagoginės technologijos, logika ir aktyvumas, požiūris, kompetencija, aukštasis mokslas.